

ABSTRACT

A two-dimensional carrier is generated in the vicinity of an interface that is a hetero interface between a semiconductor layer and a semiconductor layer. Two
5 concave portions are formed so as to extend from a primary surface as far as the interface. An electrode that is made of metal and provides a Schottky junction with the semiconductor layers is formed on a bottom surface and a side surface of the concave portion. An electrode that is made from metal and provides a low resistance contact with the semiconductor layers and is also in low resistance contact therewith is formed
10 on the bottom surface and side surface of the concave portion. As a result, a semiconductor device is provided in which contact resistance between the electrodes and the semiconductor layers is reduced and high frequency characteristics are improved.